**IT Applications Unit 3, AOS 1, Online Communities**

**Complete the following, from pgs, 18-28:**

**NETWORK HARDWARE AND SOFTWARE**

**Network Operating Systems (Windows, vista, etc)**

1. **Describe the role of the network operating system.**

The Role of the network operating system (NOS) is to control traffic in the network. It tells devices how to communicate with each other. It usually has two components – Server Software and client software.

1. **What are the typical tasks of network server software?**

Typical tasks of network server software are tasks along the lines of; controlling file access, managing print queues, keeping track of users though ids and passwords, authenticating access to network servers and keeping a log of the usage and problems in the network. In summary, their jobs mainly revolve around organization of the network and it’s servers.

1. **What is the role of network client software?**

This software is installed on each workstation and establishes a connection, through the NIC, between the workstation and other devices on the network.

1. **List the 3 providers of network operating systems.**

Microsoft,, Apple and Novell

**Web client software**

1. **List the typical client software**

**Software for setting up websites**

* The HTTP protocol- the standard for communication on the internet.
* Web server software (Microsoft internet information services (IIS))
  1. **Describe the role of http protocol.**

This is the standard that is used for transmitting and receiving and transmitting information on the internet. All servers and devices on the internet must follow the request and response procedure established in the http protocol.

* 1. **What is the role of web server software?**

To provide information and content using the http protocol. This is usually in the form of html documents, images, etc.

1. **What is the role of a proxy server?**

A proxy server acts as an intermediary for a computer that is requesting resources from another server. They may be accessing a web page, file, connection or other resource.

1. **What are the advantages of using a proxy server?**

- It keeps machines anonymous.

- To speed up resources (using caching (storing))

- To scan transmitted content for malicious software.

* 1. **Describe the role of the following software:**

1. **SMTP**

Simple Mail Transfer Protocol is a internet standard for sending emails

1. **POP3**

Post Office Protocol 3 is a application layer internet standard protocol that is used to store messages.

1. **FTP**

File Transfer Protocol

1. **Web software applications**

**Cross-platform web software**

1. **What is meant by a Cross-platform application? List egs.**

Software that are not platform dependent (e.g. flash, java). Platforms being NOS (windows or mac)

1. **What is adobe flash?**

**Network Hardware**

**Describe the characteristics and role of the following network hardware devices:**

* 1. **Network Interface Card:**
  2. **Wireless Access Point:**

WAP connects devices to a wireless network.

* 1. **Switches:**

Store the address of devices and are able to check packages to determine their destination.

* 1. **Routers:**

Sits between the device and the outside world. A junction between two networks. Can be programmed to only allow specific traffic

* 1. **Modems:**

Short for modulator-demodulator. It transfers is a device to transmit data over telephone or cable lines. A digital modem transmits data through a digital connection. They use the phone line but change it so the phone line can understand it digitally. A cable modem uses the cable tv network to transmit data rather than the phone line.

**For each of the following modem types, in a table indicate the following:**

|  |  |
| --- | --- |
| **MODEM** | **DOWNLOAD SPEED** |
| **Dial up modem** | 56 kbs |
| **ADSL** | 2mb |
| **ADSL 2 +** | 20mb |
| **Broadband Cable** | 1GB |

1. **How does a digital modem differ from a dial-up modem?**

Dial-up uses the analogue phone line. The digital uses the phone line but transforms the data into digital.